What is claimed is:

1. A method for transmit power adjustment in radio frequency systems, comprising the steps of:

detecting output power of a transmit channel;

generating an input value substantially indicative of the output power;

determining if the input value falls within a desired range;

computing an output value based on a difference multiplied by a predetermined factor if the input value is out of the desired range, where the difference is between the input value and a target value substantially corresponding to desired output power of the transmit channel;

adjusting the output power for the transmit channel in accordance with the output value; and

repeating the above steps until the input value is within the desired range.

2. The method as recited in claim 1 wherein the predetermined factor is dictated by a ratio between a first slope of the output value versus the output power and a second slope of the input value versus the output power.

3. The method as recited in claim 2 wherein the adjusting step comprises controlling a variable gain amplifier of a transceiver in accordance with the output value.

4. The method as recited in claim 3 wherein the detecting step detects the output power from a power amplifier subsequent to the transceiver.

5. A method for transmit power adjustment in radio frequency systems, comprising the steps of:

detecting output power of a transmit channel;

generating an input value substantially indicative of the output power;

computing an output value based on a difference multiplied by a predetermined factor, where the difference is between the input value and a target value substantially corresponding to desired output power of the transmit channel; and

adjusting the output power for the transmit channel in accordance with the output value.

6. The method as recited in claim 5 wherein the predetermined factor is dictated by a ratio between a first slope of the output value versus the output power and a second slope of the input value versus the output power, in which the output power is in logarithmic scale.

7. The method as recited in claim 6 wherein the adjusting step comprises controlling a variable gain amplifier of a transceiver in accordance with the output value.

8. The method as recited in claim 7 wherein the detecting step detects the output power from a power amplifier subsequent to the transceiver.

9. An apparatus for transmit power adjustment in radio frequency systems, comprising:

a detector adapted to detect output power of a transmit channel;

an input module coupled to the detector, for generating an input value substantially indicative of the output power;

an output module for accepting an output value that is used to adjust the output power; and

means for computing the output value based on a difference multiplied by a predetermined factor, where the difference is between the input value and a target value substantially corresponding to desired output power of the transmit channel.

10. The apparatus as recited in claim 9 wherein the predetermined factor is dictated by a ratio between a first slope of the output value versus the output power and a second slope of the input value versus the output power.

11. The apparatus as recited in claim 9 wherein the computing means comprises a look-up table storing a plurality of predetermined factors for respective channel frequencies.

12. The apparatus as recited in claim 10 further comprising:

a power amplifier; and

a transceiver coupled between the output module and the power amplifier, having a variable gain amplifier responsive to the output value;

wherein the detector is adapted to detect the output power from the power amplifier.

13. The apparatus as recited in claim 12 wherein the output power emitted from the power amplifier varies substantially linearly with the output value for the transceiver, in which the output power is in logarithmic scale.

14. The apparatus as recited in claim 13 wherein the input value varies substantially linearly with the output power detected by the detector, in which the output power is in logarithmic scale.